Editor's note: 93 I.D. 66; Apealed -- dismissed for lack of jurisdiction, sub nom. Aulston, et al. v. Interior, No. 114-86 (Ct. Cl. Sept. 30, 1986); Dist. Ct. aff'd, No. 87-1054 (Fed. Cir. July 2, 1987); 823 F.2d 510; aff'd, sub nom. Aulston v. Interior, Civ.No. 87-F-1144 (D.Colo. Aug. 4, 1988); aff'd, 915 F.2d 584 (10th Cir. 1990); cert denied, No. 90-1225 (S.Ct. May 13, 1991); 111 S.Ct. 2011.

ROBERT D. LANIER, ET AL.

IBLA 85-271, 84-814 Decided February 20, 1986

Appeals from separate decisions of the Colorado State Office, Bureau of Land Management, dismissing private contest complaint (Contest No. 722), and denying application for recordable disclaimer of interest in lands, C-39463.

Affirmed.

1. Act of July 17, 1914 -- Federal Land Policy and Management Act of 1976: Disclaimers of Interest -- Homesteads (Ordinary): Mineral Reservation -- Oil and Gas Leases: Lands Subject to -- Patents of Public Lands: Reservations

   A reservation of oil and gas in lands patented under sec. 1 of the Act of July 17, 1914, as amended, 30 U.S.C. § 121 (1982), is properly held to include carbon dioxide, a nonhydrocarbon gas produced from a gas well as a component of the naturally formed gases indigenous to the underlying reservoir. Hence, an application for recordable disclaimer of interest in the carbon dioxide filed by the patentee or his successor in interest is properly rejected.

APPEARANCES: Stephen H. Muse, Esq., San Antonio, Texas, for appellants; Ellen V. Gross, Esq., Houston, Texas, Ted P. Stockmar, Esq., and Marla Williams, Esq., Denver, Colorado, for Shell Western E & P, Inc.; Lyle K. Rising, Esq., Office of the Regional Solicitor, U.S. Department of the Interior, Denver, Colorado, for the Bureau of Land Management.

OPINION BY ADMINISTRATIVE JUDGE GRANT

This case involves a dispute between the United States and Robert D. Lanier and others (appellants herein) concerning ownership of the carbon dioxide (CO[2]) underlying certain land situated in Dolores and Montezuma Counties, Colorado, which had been patented to appellants or their predecessors in interest pursuant to section 1 of the Act of July 17, 1914, as amended, 30 U.S.C. § 121 (1982), with a reservation to the United States of deposits of "gas." The land is situated either within or in close proximity to the McElmo Dome (Leadville) Unit, of which Shell Western E & P, Inc. (Shell Western) is the unit operator. Carbon dioxide was discovered underlying appellants' land in the 1950's.

Appellants have appealed from two decisions of the Colorado State Office, Bureau of Land Management (BLM), dated July 27, 1984 (IBLA 84-814), and December 17, 1984 (IBLA 85-271). The appeals were consolidated for decision by order of the Board dated February 19, 1985. 1/ In its July 1984 decision, BLM dismissed appellants' private contest complaint (Contest No. 722) challenging the claim of the United States to the carbon dioxide underlying appellants' land. In its December 1984 decision, BLM adjudicated appellants' claim to the carbon dioxide in an application for a recordable disclaimer of interest (C-39463) under section 315 of the Federal Land Policy and Management Act of 1976 (FLPMA), 43 U.S.C. § 1745 (1982). The latter BLM decision denied the claim and rejected a request to place revenues from carbon dioxide leases in escrow.

1/ The names of the appellants, as well as the affected lands, are set forth in Exhibit 1 attached to the December 1984 BLM decision.

On January 9, 1984, appellants submitted a "claim" for the rights to the carbon dioxide underlying approximately 20,000 acres of land owned by them. 2/ Appellants stated the carbon dioxide is 99 percent pure and occurs in a liquid state. Appellants asserted that the United States had improperly leased these rights to Shell Oil Company and others and that the McElmo Dome (Leadville) Unit agreement, dated August 24, 1982, improperly included carbon dioxide in its definition of unitized substances. Appellants requested BLM to "disclaim all right, title and interest" in the carbon dioxide, to account for "all [past] royalty payments or other proceeds from the sale of the carbon dioxide" attributable to their land, and to place future royalty payments or other proceeds in escrow, in accordance with section 28 of the unit agreement. In support of their claim, appellants argued that section 1 of the Act of July 17, 1914, did not authorize the reservation of carbon dioxide to the United States in patents issued under the Act and that the United States did not reserve carbon dioxide when issuing such patents. Appellants submitted numerous documents in support of their arguments.

2/ BLM states in its December 1984 decision that appellants' amended claim includes 20,931.43 acres, of which 20,043.39 acres were patented under the Act of July 17, 1914, with a reservation of oil and gas to the United States. The lands patented under the 1914 Act are at issue in this appeal. The reasons for rejection of the claim as to the balance of the lands are set forth in footnote 4 below.

Of the lands patented under the 1914 Act, BLM states that 15,742.01 acres are situated within the McElmo Dome (Leadville) Unit. The McElmo Dome (Leadville) Unit embraces a total of 203,234.26 acres in Dolores and Montezuma counties in southwest Colorado, of which approximately 154,638.98 acres contain Federal oil and gas. The decision found all of the land claimed by appellants within the unit to be embraced in existing Federal oil and gas leases. BLM further stated that the "primary purpose" of the unit is to extract carbon dioxide from the Mississippian Leadville formation and to transport it "by pipeline to oil fields in Texas for injection [into existing wells] to aid recovery of the remaining reserves." The BLM decision disclosed that the carbon dioxide was discovered within the unit "about 1950" and "[d]uring the 1970's, Shell Oil Company and Mobil Oil Corporation formed seven exploratory units, [which in turn formed the basis for the present unit,] for [the] development of anticipated CO[2] reserves in the area."

On July 3, 1984, appellants filed a private contest complaint pursuant to 43 CFR 4.450, challenging the title of the United States to the carbon dioxide involved herein. Appellants stated that the complaint was "in accordance with the Order of Judge Kane, U.S. District Court for the District of Colorado, dated March 25, 1981." In that order, styled Dean Ives v. United States, Civ. No. 80-K-705 (D. Colo. Mar. 25, 1981), the court dismissed a suit challenging the title of the United States to the carbon dioxide involved herein, in part because the plaintiffs had failed to exhaust their administrative remedies by pursuing their claim before the Department of the Interior.

In its July 1984 decision, BLM dismissed appellants' private contest complaint because private contests cannot be brought against the United States under 43 CFR 4.450. BLM also noted the case involved the question of whether carbon dioxide was a reserved mineral under section 1 of the Act of July 17, 1914, which, as a matter of law, was properly resolved in an adjudication of appellants' previously filed "claim."

In the statement of reasons for appeal from the July 1984 BLM decision, appellants state they filed the private contest complaint because they felt constrained to do so by the court order in Ives. 3/ On August 27, 1984, BLM filed a motion for an extension of time to file an answer to appellants' statement of reasons, noting that BLM would soon issue a decision denying appellants' "claim" and requesting that any appeal from the anticipated

3/ The court order referred to the private contest regulations at 43 CFR Part 4, Subpart E, in noting the availability of an administrative forum for determining whether carbon dioxide is a gas reserved in a patent under the Act of July 17, 1914, 30 U.S.C. § 121 (1982). However, as noted below, we regard appellants' appeal from the December 1984 BLM decision as the appropriate administrative forum for addressing appellants' claim.

decision be consolidated with the earlier appeal. BLM also recognized appellants were "forced" to appeal the dismissal of their contest complaint in order to avoid being "foreclosed on the issue of title to carbon dioxide for failure to appeal." On August 31, 1984, appellants filed a response to BLM's motion, essentially acknowledging that their appeal from the July 1984 BLM decision was a protective appeal. In view of the fact that BLM has since acted upon appellants' claim, thus providing an appropriate forum for consideration of the essential controversy in the case (i.e., who holds title to the carbon dioxide under the Act of July 17, 1914) and recognizing the inappropriateness of a private contest to quiet title as against the United States (see 43 CFR 4.450-1), we hereby affirm the July 1984 BLM decision dismissing appellants' private contest.

In its December 1984 decision, BLM concluded that the United States holds all right, title, and interest to the carbon dioxide in lands patented under the Act of July 17, 1914, by reason of a reservation of oil and gas to the United States. As a basis for the decision BLM relied on two memoranda issued by the Office of the Regional Solicitor, dated July 12, 1979, and July 26, 1984, and a memorandum issued by the Office of the Solicitor, dated July 20, 1984. Treating appellants' respective claims as a single consolidated application for a recordable disclaimer of interest in the carbon dioxide, BLM denied the application. 4/ BLM also found that any doubts

4/ BLM further stated the application was properly treated as 140 separate applications, all of which were subject to the "recently issued regulations" set forth at 43 CFR Subpart 1864 (49 FR 35297 (Sept. 6, 1984)), including payment of filing fees and processing costs. However, BLM concluded that appellants would not be required to comply with these regulations, unless they were successful on appeal, because BLM had substantially adjudicated their application prior to promulgation of the regulations.

regarding the invalidity of appellants' claim were resolved by the "severe administrative consequences" of a finding of validity, noting the Department has "for at least 40 years" considered oil and gas leases to convey carbon dioxide. BLM stated that a finding of validity would, for example, cloud the title of existing leases, especially those held by the production of carbon dioxide, and complicate the issuance of leases where the land underlying portions of those potential leases had been patented under the Act of July 17, 1914. BLM concluded: "Absent a clear, positive basis for a determination that the landowner is the owner of the CO[2], the resulting complications should weigh in favor of ownership by the United States of America." 5/ Finally, BLM rejected appellants' request to account for or to place in escrow "revenues attributable to the carbon dioxide in the claimed lands."

BLM also noted that, with respect to portions of the claims of particular appellants, the application for a recordable disclaimer of interest was subject to rejection because the United States had either clearly conveyed its mineral interest or retained that interest. BLM stated the following land had been patented with no mineral reservation: lot 2, sec. 4, T. 37 N., R. 19 W., sec. 16, T. 38 N., R. 16 W.; and the NE 1/4 sec. 1, T. 38 N., R. 19 W., New Mexico Principal Meridian, Colorado. BLM stated the following land had not been patented: W 1/2 SW 1/4 sec. 17, T. 37 N., R. 19 W., New Mexico Principal Meridian, Colorado.

BLM also noted that, with respect to a portion of the claim of one appellant, the patent from the United States had, in addition to reserving oil and gas under section 1 of the Act of July 17, 1914, reserved coal and other minerals under section 9 of the Stock-Raising Homestead Act, as amended, 43 U.S.C. § 299 (1982). BLM stated this additional reservation was probably due to an inadvertent mistake and it would adjudicate the claim based on the reservation under the 1914 Act. However, it reserved the right to adjudicate the claim under the Stock-Raising Homestead Act. BLM indicated the following land was affected by this dual reservation: SE 1/4 NE 1/4, N 1/2 SE 1/4 and SE 1/4 SE 1/4 sec. 8, T. 39 N., R. 19 W., New Mexico Principal Meridian, Colorado.

5/ BLM states that, in view of these complications, it reserves any procedural defenses it may have against appellants' individual claims, including laches, estoppel, or the statute of limitations.

Section 315(a) of FLPMA, 43 U.S.C. § 1745(a) (1982), provides, in relevant part, that the Secretary of the Interior may issue a recordable disclaimer of interest "in any lands * * * where the disclaimer will help remove a cloud on the title of such lands and where he determines * * * a record interest of the United States in lands has terminated by operation of law or is otherwise invalid." Thus, the Secretary, and his delegated representative, BLM, have the discretionary authority to issue a recordable disclaimer of interest if it is determined that certain lands are "not lands of the United States or that the United States does not hold a valid interest in the lands." 43 CFR 1864.0-1. The term "lands" includes "interests in lands." 43 CFR 1864.0-5(e). Hence, BLM may properly consider whether to issue a recordable disclaimer of interest with respect to the carbon dioxide located beneath the lands owned by appellants. The crucial question is whether carbon dioxide was an interest reserved to the United States when it issued patents to the land pursuant to section 1 of the Act of July 17, 1914. This question requires that we examine the meaning of the Act.

[1] Section 1 of the Act of July 17, 1914, as amended, 30 U.S.C. § 121 (1982), provides, in relevant part, that:

> Lands withdrawn or classified as phosphate, nitrate, potash, oil, gas, or asphaltic minerals, or which are valuable for those deposits, shall be subject to appropriation, location, selection, entry, or purchase, if otherwise available, under the nonmineral land laws of the United States, whenever such location, selection, entry, or purchase shall be made with a view of obtaining or passing title with a reservation to the United States of the deposits on account of which the lands were withdrawn or classified or reported as valuable, together with the right to prospect for, mine, and remove the same. [Emphasis added.]

Section 3 of the Act of July 17, 1914, 30 U.S.C. § 123 (1982), provides that the appropriate mineral reservation will also be included in a patent where entry is made prior to classification, withdrawal, or reporting of the lands "as being valuable for phosphate, nitrate, potash, oil, gas, or asphaltic minerals." In the present case, the patents to appellants or their predecessors in interest contain a reservation of the oil and gas, in accordance with these statutory provisions. The question, therefore, is whether carbon dioxide comes within the scope of the term "gas" as used in the Act of July 17, 1914. 6/

It is clear that under normal atmospheric pressure and temperature carbon dioxide is a "gas" in the sense that it has neither independent shape nor volume but tends to expand indefinitely. Bureau of Mines, U.S. Department of the Interior, A Dictionary of Mining, Mineral, and Related Terms 479 (1968) (definition of "gas"); S. B. Talmage and A. Andreas, Carbon Dioxide in New Mexico, (New Mexico Bureau of Mines and Mineral Resources Circular No. 9 (1942)) (Appellants' Brief at Tab 28). However, appellants argue a distinction should be drawn between two types of gas -- hydrocarbons and nonhydrocarbons -- when interpreting the reservation under the 1914 Act.

6/ Appellants argue on appeal that the mineral reservation under the Act of July 17, 1914, could only encompass those minerals which, prior to patent, specifically led to the withdrawal, classification, or reporting as valuable of the land embraced therein. There is no evidence that the land involved herein was withdrawn, classified, or reported as valuable on account of carbon dioxide. However, the mineral reservations clearly embrace the term "gas." We must, therefore, presume that the land was either withdrawn, classified, or reported as valuable on account of "gas." The time to challenge the propriety of a reservation contained in a patent is at the time of issuance of the patent. See Brennan v. Udall, 379 F.2d 803, 807 (10th Cir.), cert. denied, 389 U.S. 975 (1967).

In their statement of reasons for appeal, appellants contend that in providing for a reservation of gas under the Act of July 17, 1914, Congress intended only to reserve hydrocarbons which (unlike nonhydrocarbons) may be used as a source of fuel. Appellants recite that certain lands of the United States had been withdrawn from nonmineral entry by petroleum withdrawals in the early days of the 20th century in order to conserve supplies of "mineral fuels" for the benefit of the entire country (Message from the President, dated Feb. 13, 1907, 41 Cong. Rec. 2806-08 (1907) (Appellants' Brief at Tab 15)), but that this had resulted in the closing of millions of acres of land to homestead and other entry. In order to open such land to nonmineral entry, but yet to continue the protection afforded these minerals, appellants point out, Congress enacted the Act of July 17, 1914, and other similar acts, opening the lands to nonmineral entry while reserving these minerals to the United States. See United States v. Union Oil Company of California, 549 F.2d 1271, 1274-75 (9th Cir.), cert. denied, 434 U.S. 930 (1977). 7/ Appellants argue that the reservation in the 1914 Act had the same purpose as the various withdrawals, i.e., to protect "mineral fuels." Appellants also recognize the intent to reserve mineral fertilizers in the 1914 Act. Appellants state that oil, gas, and asphaltic minerals fall into the category of mineral fuels and phosphate, nitrates and potash fall into the category of mineral fertilizers.

In support of their argument that the minerals listed in the Act of July 17, 1914, fall into two basic categories, i.e., mineral fuels and

7/ The Union Oil case involved an analysis of the scope of the mineral reservation in patents issued under section 9 of the Stock-Raising Homestead Act of 1916, 43 U.S.C. § 299 (1982). The opinion of the court provides an illuminating discussion of the background and purpose of the mineral reservations.

fertilizers, appellants refer first to a statement by A. A. Jones, First Assistant Secretary of the Interior, in a letter to the Chairman, Committee on Public Lands, U.S. Senate, dated September 16, 1914, recommending passage of Senate Bill 6484 extending the provisions of the Act of July 17, 1914, to Alaska. After discussing the Act of July 17, 1914, and other statutes opening mineral land to agricultural entry subject to a reservation of minerals, First Assistant Secretary Jones stated: "From the foregoing, it appears that Congress has, in the United States proper, inaugurated a definite policy of separate dispositions of surface estates and mineral deposits in certain classes of important fuel and fertilizer minerals. With this general policy, this Department is in hearty accord" (Appellants' Brief at Tab 15).

In further support of their contention that, at the time of passage of the Act of July 17, 1914, both Congress and the Department considered gas to be a hydrocarbon, appellants refer to a Departmental publication in which the term "oil and gas" is used interchangeably with the term "hydrocarbons." George Otis Smith, The Classification of the Public Lands (Geological Survey, U.S. Department of the Interior, Bulletin 537, 1913) (Appellants' Brief at Tab 6). In particular, Survey stated: "The immediate purpose of the classification of oil and gas land is to withhold from entry all lands containing valuable deposits of fluid hydrocarbons pending the enactment of adequate legislation providing for their disposition." Id. at 117.

It appears from the record that at the time of passage of the Act of July 17, 1914, carbon dioxide was recognized as a constituent of natural gas, although it was regarded as an impurity. It is unlikely that Congress

had any specific intent regarding whether the reservation of gas under the Act included a reservation of carbon dioxide since, although carbon dioxide was known to be a component of natural gas, it was not considered to have commercial value. 8/

Courts have had occasion previously to consider whether a conveyance of "gas" encompasses nonhydrocarbon gases. In Navajo Tribe of Indians v. United States, 364 F.2d 320 (Ct. Cl. 1966), the court was called upon to determine whether a lease of "oil and gas deposits" on the Navajo Reservation approved by the Assistant Secretary of the Interior in 1923 conveyed the right to produce helium, a noncombustible, nonhydrocarbon gas found to be associated with other hydrocarbon and nonhydrocarbon gases. 9/ The court noted first that gases existing in nature do not fall into mutually exclusive categories such as hydrocarbon and nonhydrocarbon. Rather, the various elements are commingled and the hydrocarbon content cannot be produced separately from the other components. Id. at 326.

8/ In a letter to the Trans-America Oil Company, dated July 13, 1932, quoted in appellants' brief, Joseph M. Dixon, Acting Secretary of the Interior, stated:

"In August, 1921, the Utah Oil Refining Company drilled a test well on oil and gas prospecting permit, Salt Lake City 026100, on the Farnham Structure in Utah, and at a depth of 3086 feet encountered a flow of approximately twelve million cubic feet per twenty-four hours of practically pure carbon dioxide gas. However, as carbon dioxide gas was considered at that time as of no commercial value, the well was plugged and abandoned at a depth of 3235 feet in January, 1924."

(Appellants' Brief at Tab 26).

9/ The composition of the gas was set forth in the opinion of the court as follows:

	Percentage
Methane and other hydrocarbons	17.0
Nitrogen	72.6
Helium	7.6
Carbon Dioxide	2.8
	100.0

364 F.2d at 324.

After noting that the parties to the lease may have been contemplating mainly fuel-type gases, the court found it "more realistic to presume that the grant included not only hydrocarbons but other gaseous elements as well." Id. at 326. Hence, the court held that, regardless of whether the percentage of helium content was high or low, the helium component was part of the gas deposit conveyed to the lessee. Id. at 326. The court found this holding consistent with the general intent of the parties and rejected lessor's contention that, in the absence of a showing of specific intent to convey helium, the lease included only hydrocarbon gases. Id. at 326-37. 10/

In Northern Natural Gas Co. v. Grounds, 441 F.2d 704 (10th Cir. 1971), the court was called upon to determine whether oil and gas leases in the enormous gas fields of the Hugoton area embracing approximately 33,000 square miles and 21 million acres conveyed the helium produced with the hydrocarbon gas. After quoting the trial court's definition of gas as including any naturally formed aeriform substances indigenous to the underlying reservoir, which aeriform substances include helium, id. at 711, the court found the issue to be one of intent. The court rejected the landowners' reliance on the doctrine of ejusdem generis to support their claim that helium, a nonhydrocarbon, was not conveyed by the oil and gas leases. The court found the word "gas" to have "equal status" with the word "oil," citing Navajo Tribe of Indians v. United States, supra.

10/ The court also rejected application of the doctrine of ejusdem generis (general words following enumeration of specific things are to be construed as including only things of the same kind or class) to find from the lease of "oil and gas" that the term "gas" was limited in scope to hydrocarbons. This is one of the arguments made by appellants in the present case.

The Northern court characterized the critical issue as whether general or specific intent controls. The court accepted the trial court finding that gas did not connote helium to the average landowner, that no landowner contemplated helium in granting the right to produce gas, and that the landowner had no intention whatever regarding helium. After finding that helium emerges as a component of the gas produced from a gas well which necessarily comes from the wellhead and into the transmission line with all the gases which make up the entire stream, the court held that general intent would include in the lease all components of the gas produced by the wells, whereas specific intent would embrace only combustible gas. Northern Natural Gas Co. v. Grounds, 441 F.2d at 712-14.

The court found that nothing in the leases disclosed an intent to convey only combustible (hydrocarbon) gases and that, if such were the intent of the lessor, it should have been specified. More significantly, the court held that in the absence of lessor's knowledge of the presence of helium at the time of leasing, they could not have had a specific intent and the general intent is dispositive. Id. at 714. The court found that the general intent must be determined by considering the purpose of the grant in terms of enjoyment of the rights created, i.e., the desire of the landowners to profit by production of gas from their lands, to which end they gave exclusive leases permitting exploration, development, production, and marketing of gas. After noting that the gas came from the ground with all its components and that wellhead separation of the helium was impractical, the Northern court refused to read into the leases a "subjective intent to convey only those components of the gas which comport to a subjective notion of the commercial end uses at the time of lease execution." Id. at 715.

We find the analysis of the courts in the Navajo and Northern decisions compelling in determining the scope of the reservation of "gas" under the Act of July 17, 1914. Although Congress and the Department were apparently thinking of gas primarily as a hydrocarbon fuel at the time of enactment, there is no limitation of the reservation in the Act to hydrocarbon gas. The fact that carbon dioxide, although recognized as a component of gas, was not perceived to have commercial value, further tends to negate the existence of a specific intent with respect to reservation of carbon dioxide. In the absence of a specific intent to exclude carbon dioxide from the reservation of gas, we must reject appellants' attempt to read into the Act a "subjective intent to [reserve] only those components of the gas which comport to a subjective notion of the commercial end uses at the time." Northern Natural Gas Co. v. Grounds, supra at 715.

This is consistent with the holding of the court in Brennan v. Udall, 251 F. Supp. 12 (D. Colo. 1966), aff'd, 379 F.2d 803 (10th Cir.), cert. denied, 389 U.S. 975 (1967), in examining the applicability of the reservation of oil under the 1914 Act to oil shale. After noting Congress did not specifically address oil shale in passing the Act, the court found that the purpose and history of the Act, viewed in light of the overall policy of Congress regarding separation of mineral and surface rights, leads to the conclusion that the term "oil" was used in its broadest, generic sense which included oil shale. Id. at 24-25. Similarly, the term "gas" must be interpreted to include all of the component parts of gas and not only the hydrocarbon content thereof. 11/

11/ Appellants seek to distinguish the carbon dioxide deposit in this case from other occurrences of carbon dioxide produced from underground wells on

An important additional factor when considering the intent of the withdrawals and the subsequent reservations in agricultural entry patents is the recognition of the fugacious character of oil and gas. Early cases compared oil and gas to wild animals which are not reduced to ownership until captured. New American Oil & Gas Mining Co. v. Troyer, 76 N.E. 253 (1905); Dark v. Johnston, 55 Pa. 164 (1867). As a result, steps were taken to protect these fugacious commodities from drainage by adjacent owners, and the waste which resulted from attempts to capture oil and gas before it was captured by others. This being the case, it can reasonably be assumed that when using the term "gas," the intent was to include all mineral deposits of a gaseous nature, rather than to differentiate between hydrocarbon gas and nonhydrocarbon gas.

Further, it is clear that for many years both Congress and the Department have considered a gas lease to convey nonhydrocarbon gaseous components, unless there is an express provision to the contrary. Thus, section 1 of the Mineral Leasing Act of February 25, 1920, which provided for the leasing of oil, gas, and other mineral deposits owned by the United States, expressly reserved to the United States the ownership of and the right to extract helium from all gas produced from leased lands. Mineral Leasing Act of 1920, ch. 85, § 1, 41 Stat. 437-38 (codified at 30 U.S.C. § 181 (1982)). This Department has previously recognized that, if nonhydrocarbon gases were not

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the basis that this deposit is 99 percent pure. The record indicates the remaining content of the gas is nitrogen, 0.9 percent, and methane (a hydrocarbon component of gas), 0.1 percent. Accordingly, appellants argue that the carbon dioxide is not "commingled" with hydrocarbon gas. Although it may be conceded that in this case the hydrocarbon content is so minor as to be insignificant, the deposit remains a naturally formed gas indigenous to the underlying reservoir consisting of several commingled components. The notion that title to an underlying gas reservoir may rest on the results of a "purity test" is properly rejected.

within the meaning of the term "gas," it would not have been necessary to expressly exclude the right to extract helium under Federal oil and gas leases. Ownership of and Right to Extract Coalbed Gas in Federal Coal Deposits, Solicitor's Opinion, 88 I.D. 538 (1981).

On May 7, 1936, the Department promulgated regulations implementing the Mineral Leasing Act, specifically listing "carbon dioxide" as a gas which was subject to leasing, and providing for the payment of royalties on production. Circular No. 1386, 55 I.D. 502, 511, 521 (1936). Moreover, since 1942, the Department has defined gas as "any fluid, either combustible or noncombustible, which is produced in a natural state from the earth and which maintains a gaseous or rarefied state at ordinary temperature and pressure conditions." 30 CFR 221.2(o) (7 FR 4133 (June 2, 1942), currently codified at 43 CFR 3000.0-5(a)). A letter dated July 13, 1932, from Joseph M. Dixon, Acting Secretary of the Interior, to the Trans-American Oil Company (reproduced in Appellants' Brief at Tab 26) confirms that at least since 1928 carbon dioxide was considered to be leasable under the Mineral Leasing Act of 1920:

> In a letter dated June 16, 1928, to Mr. George D. Parkinson of Salt Lake City, Utah, the First Assistant Secretary of the Interior stated that:
>
> > "In my opinion the regulations pertaining to prospecting for oil and gas under the act of February 25, 1920 (41 Stat. 437), would be applicable to prospecting for carbon dioxide gas and in the event of a valuable discovery of such gas a lease would issue in accordance with the provisions, regulations, and royalties pertaining to that act."
>
> On February 4, 1930, the Solicitor of the Department again considered this question and others in connection with the development of carbon dioxide gas for commercial purposes, affirming the former conclusions.

Thus, we have recognition by Congress that the scope of the term "gas" embraces nonhydrocarbon gases such as helium, as well as the long Departmental history of treating carbon dioxide gas as embraced within an oil and gas lease issued pursuant to the Mineral Leasing Act of 1920. Although not conclusive, this supports a finding that carbon dioxide is within the scope of the gas reservation under the Act of July 17, 1914.

Accordingly, pursuant to the authority delegated to the Board of Land Appeals by the Secretary of the Interior, 43 CFR 4.1, the decisions appealed from are affirmed.

C. Randall Grant, Jr.
Administrative Judge

We concur:

Franklin D. Arness
Administrative Judge

R. W. Mullen
Administrative Judge